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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-------------------------------------|-----------------------|----------------------|-------------------------|------------------|--|
| 10/644,644 | 08/19/2003 | Francois J. Henley | 018419-000183US | 5492 | |
| 20350 | 7590 06/24/2005 | | EXAM | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP | | | LEE, HSIE | LEE, HSIEN MING | |
| EIGHTH FLO | RCADERO CENTER OOR | | ART UNIT | PAPER NUMBER | |
| SAN FRANC | CISCO, CA 94111-3834 | | 2823 | | |
| | | | DATE MAILED: 06/24/2009 | 5 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|--|---|---|---|-----|--|--|--|
| | | Application No. | Applicant(s) | | | | |
| | | 10/644,644 | HENLEY ET AL. | | | | |
| | Office Action Summary | Examiner | Art Unit | | | | |
| | | Hsien-ming Lee | 2823 | | | | |
| Period for | The MAILING DATE of this communication app Reply | pears on the cover sheet with the | correspondence address | | | | |
| THE M - Extens after SI - If the p - If NO p - Failure Any rep | RTENED STATUTORY PERIOD FOR REPLY AILING DATE OF THIS COMMUNICATION. ions of time may be available under the provisions of 37 CFR 1.13 (6) MONTHS from the mailing date of this communication. eriod for reply specified above is less than thirty (30) days, a reply eriod for reply is specified above, the maximum statutory period to reply within the set or extended period for reply will, by statute by received by the Office later than three months after the mailing patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be y within the statutory minimum of thirty (30) d will apply and will expire SIX (6) MONTHS fro , cause the application to become ABANDON | timely filed ays will be considered timely. m the mailing date of this communication. IED (35 U.S.C. § 133). | | | | |
| Status | | | | | | | |
| 1) 🗌 F | Responsive to communication(s) filed on | _· | | | | | |
| , | ,— | action is non-final. | | | | | |
| • — | · | | | | | | |
| C | closed in accordance with the practice under E | Ex parte Quayle, 1935 C.D. 11, | 453 O.G. 213. | | | | |
| Dispositio | n of Claims | | | | | | |
| 4) 🛛 (| Claim(s) 52-65 is/are pending in the application | n. | | | | | |
| 4 | a) Of the above claim(s) is/are withdraw | wn from consideration. | | | | | |
| | Claim(s) is/are allowed. | | | | | | |
| • | Claim(s) <u>52-65</u> is/are rejected. | | | | | | |
| • | Claim(s) 56,57,59 and 60 is/are objected to. | or clostion requirement | | | | | |
| •)∟ (| Claim(s) are subject to restriction and/o | n election requirement. | | | | | |
| Application | n Papers | | | | | | |
| , | he specification is objected to by the Examine | | dt. b. the Francisco | | | | |
| | he drawing(s) filed on 19 August 2003 is/are: | | | | | | |
| | Applicant may not request that any objection to the Replacement drawing sheet(s) including the correc | | | 1 | | | |
| | The oath or declaration is objected to by the Ex | | | ,. | | | |
| , | | Administration and and area | | | | | |
| • | nder 35 U.S.C. § 119 | | | | | | |
| a) <u></u> | cknowledgment is made of a claim for foreign ☐ All b)☐ Some * c)☐ None of: 1.☐ Certified copies of the priority document | | (a)-(d) or (f). | | | | |
| 2 | Certified copies of the priority document | ts have been received in Applica | ation No | | | | |
| ; | 3. Copies of the certified copies of the prio | rity documents have been rece | ived in this National Stage | | | | |
| | application from the International Burea | | | • | | | |
| * Se | ee the attached detailed Office action for a list | of the certified copies not recei | ved. | | | | |
| | | HS PRIM | GIEN-MING LEG MARY EXAMINED | | | | |
| · Attachment | • • | | 922/05 | | | | |
| | of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948) | 4) Interview Summa Paper No(s)/Mail | | | | | |
| 3) 🔯 Inform | nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date 6/2-304 | | al Patent Application (PTO-152) | | | | |

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DETAILED ACTION

Claim Objections

1. Claims 56,57, 59 and 60 are objected to because of the following informalities as follows.

In re claims 56, 57 and 59, changing "selected from " into -- selected from a group consisting of -- is suggested. See M.P.E.P. 2173.05 (h).

In re claim 60, the term" transfer material" should be -- transfer substrate --.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 52-57, 59 and 62-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Biasse et al. (US 5,993,677, submitted by applicants).

In re claim 52, Biasse et al teach a method for forming multilayered substrates, comprising:

- providing a donor substrate 110/112 comprising an overlying film of material 112 to be detached (Fig.6B);
- coupling the film of material 112 from the donor substrate 110/112 to a transfer substrate 120 (Fig.6A and Fig.7);
- releasing the film of material 112 from the donor substrate 110/112, while maintaining attachment to the transfer substrate 120 (Fig. 8);

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• coupling the film of material 112 on the transfer substrate 120 to a handle substrate 132 (Fig.9); and

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• transferring the film of material 112 from the transfer substrate 120 to the handle substrate 132 to free the film of material 112 from the transfer substrate 120 while providing the film of material 112 on the handle substrate 132 (Fig.10).

In re claim 53, Biasse et al teach that the transfer substrate 120 temporarily holds the film of material 112 before the film of material 112 has been released using a controlled cleaving action (col. 3, lines 16-17).

In re claim 54, Biasse et al teach that the transfer substrate 120 couples to the top surface of the film of material 112 (Fig.7).

In re claim 55, Biasse et al teach that the transfer substrate 120 couples to an implanted surface 126 of the film of material 112 (Fig. 7 and col. 3, lines 16-19).

In re claim 56, Biasse et al teach that the coupling is provided using adhesive (col. 3, lines 45-51).

In re claims 57 and 59, Biasse et al teach that the transfer substrate 120 is made of a conductive material, i.e. silicon (col. 3,line 24).

In re claim 62, Biasse et al teach that the film of material 112 has been formed using a controlled cleaving action (i.e. forming a gases micro-bubbles zone 126, which would be subjected to the cleaving action, col. 3, lines 18-23 and col. 4, lines 52-54) before the coupling of the film of material 112 on the transfer substrate 120.

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In re claim 63, Biasse et al teach that the film of material 112 on the donor substrate 110/112 has been detached via tearing not by removing via etching (col. 4, lines 4, lines 7-10).

In re claim 64, Biasse et al teach subjecting the film of material 112 on the transfer substrate 120 to a first process, i.e. subjecting to a joining process by means of a glue (col. 3, lines 45-51).

In re claim 65, Biasse et al teach subjecting the film of material 112 on the transfer substrate 120 to a second process, i.e. subjecting to an annealing process (col. 3, lines 56-58).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 58, 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biasse et al. in view of Takemura et al. (JP 07164728).

In re claim 58, the selection of the material of the transfer substrate is obvious because it is a matter of determining optimum process condition by routine experimentation with a limited number of species. In re Jones, 162 USPQ 224 (CCPA 1955)(the selection of optimum ranges within prior art general conditions is obvious) and In re Boesch, 205 USPQ 215 (CCPA 1980)(discovery of optimum value of result effective variable in a known process is obvious). In this case, one of the ordinary skill in the art would have been motivated to choose a desired material as the transfer substrate, as long as the transfer substrate can be easily detached from the donor substrate during the transferring

In re claims 60-61, Biasse et al. do not teach that the transfer substrate comprises a plastic material.

The selection of the material of the transfer substrate is obvious because it is a matter of determining optimum process condition by routine experimentation with a limited number of species. In re Jones, 162 USPQ 224 (CCPA 1955)(the selection of optimum ranges within prior art general conditions is obvious) and In re Boesch, 205 USPQ 215 (CCPA 1980)(discovery of optimum value of result effective variable in a known process is obvious).

For example, Takemuraet al. teach providing a donor substrate 1/2/4/31/32 comprising an overlying film of material 31/32 (Fig.2); coupling the film of material 31/32 from the donor substrate 1/2/4/31/32 to a transfer substrate 7 (Figs.4-5), wherein the transfer substrate 7 comprises a plastic.

Therefore, it would have been obvious to one of the ordinary skill in the art, at the time the invention was made, to utilize the plastic, as taught by Takemuraet al., as the transfer substrate in Biasse et al., since the plastic having a flexibility, which can be easily detached from the donor substrate.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday $(8:00 \sim 6:00)$.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hsien-ming Lee Primary Examiner Art Unit 2823 Page 6

June 22, 2005

HSIEN-MING LEE PRIMARY EXAMINED

6/2/05